Airworthiness Facts

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IA RENEWAL

2025 is a renewal year. The date for the Wichita IA Renewal Seminar will be Friday March 7, 2025. More information will be coming on this seminar. At this time just save the date. It never too early to look at training for the next cycle. Appendix A of this information letter has a list of AMT Courses that are available on FAASafety.Gov to take at your leisure so you can be better prepared for the next renewal cycle, and they are free.

Owner/Operator Produced Parts:

Federal Aviation Administration

What is an owner produced part? According to 14 CFR, Part 21.9(a)(5) an owner/operator may produce a part for their own product. The following are some of the rules and limitations on these owner/operators' produced parts. In order for a part to be considered owner/operator produced, the owner/operator must participate in at least one of five ways:

- The owner/operator provides the manufacturer with design or performance data.
- The owner/operator provides the manufacturer with materials.
- The owner/operator provides the manufacturer with fabrication processes or assembly methods.
- The owner operator provides the manufacturer with quality control procedures.
- The owner/operator personally supervises the manufacture of the part.

The next question is whether the owner/produced part is an FAA approved part. If the owner/operator produced part meets all the requirements of an approved part, then it is considered an FAA approved part. Advisory Circular 20-62 (as amended) has the full list of requirements to ensure parts meet FAA approved part standards. How do we determine that is meets the requirements of an approved part? There are four characteristics of an approved part:

- The part must be properly designed.
- Properly produced to conform to the design.
- Properly documented.
- Properly maintained for as long as it is in service.

The owner/operator cannot produce a part to sell to another entity. A mechanic or repair station may produce a part. For instance, airline company A has a fleet of 737s for which they have produced a part. A servicing repair station

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may keep a stock of that owner/operators' produced part to use on airline company A's aircraft. However, if the repair station maintains 737s for airline company B, they cannot install one of airline company A's owner/operator produced parts on company B's aircraft. However, an owner/operator can sell an aircraft with an owner/operator produced part already installed and properly recorded and maintained.

An owner/operator can produce parts to maintain their own product, but they usually cannot install the part themselves. A properly certificated mechanic or repair station must do the installation and record the installation in the aircraft maintenance records. This is the point where the installer must make the final determination that the owner/operator produced part meets the four elements of an FAA approved part and qualifies for installation.

Remember that just because a part may look right, it does not mean it is right. Ensure the part conforms to the requirements of 14 CFR, Part 43.13 or, if an air carrier, per their quality system and there is proper documentation in the manufacture of the part. If you are not sure about installing an owner/operator produced part, contact your local FSDO or your principal inspector for advice.

Emergency Locator Transmitter testing

As we all know this is required annually per 14CFR 91.207. Other than the visual inspection, how do you comply with (4) *The presence of a sufficient signal radiated from its antenna*? Do you tune the VHF to 121.5 and activate the ELT and listen to the aircraft VHF radio?

Well, this is not what AC 43.13-1B says about ELT testing. From AC43.13-1B, chapter 12.23; *d. For a Sufficient Signal Radiated From its Antenna. Activate the ELT using the ON or ELT TEST switch. A low-quality AM broadcast radio*



receiver should be used to determine if energy is being transmitted from the antenna.

When the antenna of the AM broadcast radio receiver (tuning dial on any setting) is held about 6 inches from the activated ELT antenna, the ELT aural tone will be heard (see NOTE 2 and 3).

So now you are meeting the rule for the 121.5 transmission, but how are you testing the 406 portions? Or are you? After asking around about this, it seems that some folks just do what they can and don't go any further, but this means that they are not fully complying with the rule. We did a review of the rule and questioned some FAA folks in the rule making business, to see if there was a plan to update 91.207 to possibly change the requirements for the newer GPS ELT's. The explanation received was No. The requirements of the rule apply, regardless of the emission (121.5, 243, 406). So, this means that if you are accomplishing the test on a 406 ELT, you must follow the Instructions for Continued Airworthiness (ICA) for that installation. This might require a specific test set. Take a look at this site for information on testing 406 ELT's; **Emergency Beacon Testing | SARSAT**

(noaa.gov) Also read the AC AC 91-44A ELT testing

Annual time is also a good time to ensure the 406 ELT is registered; <u>https://www.cospas-sarsat.int/en/seeing-information-programmed-in-your-beacon</u>

Refer to the rule:

406 ELTs and meeting 14CFR 91.207(d);

(d)Each emergency locator transmitter required by paragraph (a) of this section must be inspected within 12 calendar months after the last inspection for—

(1) Proper installation.

(2) Battery corrosion.

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- (3) Operation of the controls and crash sensor; and
- (4) The presence of a sufficient signal radiated from its antenna.

Safety Management System

Safety Management Systems are a set of policies and processes that can increase the safety and efficiency of any flight operation. The FAA is bringing SMS to General Aviation. You may have heard of SMS and thought it was only for large organizations, SMS can be scaled to fit any operation large or small. There are 4 major components to a Safety Management System Safety Policy.

- A documented commitment to safety that runs from the head of an organization to its newest member.
- Safety Risk Management a process that identifies hazards within an operation, determines to what extent an identified hazard may impact flight safety, and controls the risk of occurrence to an acceptable level.
- Safety Assurance By collecting and analyzing information derived from safety performance data Safety Assurance ensures the performance and effectiveness of Safety Risk Controls.
- Safety Promotion communicates safety information and commitment throughout the organization.

More information on SMS can be located at the following link:

https://www.faa.gov/about/initiatives/gasafety outreach



Maintenance Training Topic of the Quarter: Advanced Air Mobility (AAM<mark>)</mark>

What is this new aviation era? Advanced Air Mobility (AAM) is an umbrella term for highly automated and electric aircraft. These aircraft are often referred to as air taxis or electric Vertical Takeoff and Landing (eVTOL) aircraft.

AAM has the potential to achieve the Administration's vision of more efficient, sustainable, and equitable transportation while creating thousands of great jobs.

But AAM is not just about passenger transport. It holds the potential to revolutionize cargo transportation, aid in firefighting and search and rescue operations, and crucially bridge the gap for underserved and rural communities.

The aviation industry is experiencing growth in new and innovative aircraft design and operations. The FAA is at the forefront of establishing an operational AAM ecosystem at one or more key sites in the United States soon. We are providing programmatic support, coordinating key projects and research, synchronizing messaging, and working to safely and responsibly usher in this new era in aviation.

These aviation dreams will only happen if people are confident that they are safe, just like flying in the United States today. That's the FAA's job: making sure this new generation of air taxis maintains the high level of safety that defines modern aviation. Many AAM companies are the designers, manufacturers, and operators, requiring them to obtain several certifications.



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Vehicle Certification

The FAA has the regulations in place that allow manufacturers to achieve our safety standards in innovative ways. When tailoring existing rules to a new concept, the FAA determines the certification requirements for the eVTOL's design, production, airworthiness, and operation. Some certifications could require the FAA to issue special conditions or additional airworthiness criteria, depending on the type of project. We use the same data-driven approach when evaluating these complex systems that has created the safest aviation system in the world.

Operator Certification & Framework

Many of these new aircraft take off in helicopter mode, transition into airplane mode for drone over-skyline flying, and then transition back to helicopter mode for landing. In June 2023, we issued a proposed rule for training and certifying pilots.

In July 2023, the FAA issued a final rule updating the air carrier definition to add "powered lift" operations to the regulations covering other commercial operations, such as airlines, charters, and air tours.

In August 2022, the FAA met its first milestone on time for rules (Special Federal Aviation Regulations) that will govern these operations. Several manufacturers have publicly said they anticipate no delays in certification from this approach.

Just like with drones, we are learning about and addressing local community concerns about AAM operations in and around metropolitan areas. For this effort, we're engaging with state, local, and tribal governments, and communities. One of our initiatives is working with NASA on a national campaign to help communities learn about AAM. We encourage communities to get involved now while we're in these early phases.



Link to NASA Advanced Air Mobility Mission



Link to FAA Advanced Air Mobility Page



Link to Advanced Air Mobility Series Webinars

General Aviation Awards.

I talked about this in the past, but I am going into a little more detail because I missed a couple of the Awards. I hope you have heard of them, the Awards that are available are:

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- Charles Taylor Award,
- Wright Brothers Award and the
- General Aviation Awards.



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The Charles Taylor Master Mechanic Award is the most prestigious award the FAA issues to persons certificated under Title 14 of the Code of Federal Regulations (14 CFR) part 65. This award, named after Charles Taylor, is to recognize individuals who have exhibited exemplary aviation expertise, distinguished professionalism, and steadfast commitment for at least 50 years or more of aviation maintenance experience. A distinctive certificate, and the airman's Blue-Ribbon package is issued after application review and eligibility requirements have been met. Upon request, a lapel pin and/or plaque for the award recipient is available for purchase and a second lapel pin is also available for purchase for the award recipient's spouse in recognition of his or her support to the recipient's aviation career. Once the award has been issued, the recipient's name, city and state will be added to a published "Roll of Honor," located at

https://www.faasafety.gov/content/MasterMechani c/RecipientList.aspx

To be eligible for the Charles Taylor Master Mechanic Award, nominees must meet the following criteria:

- Hold a U.S. Civil Aviation Authority (CAA) or Federal Aviation Administration (FAA) mechanic or repairman certificate.
- Have 50 or more years of civil and military maintenance experience. Up to 20 years of the required 50 years may be U.S. military experience.
- Or worked as an uncertificated person in a U.S. aviation maintenance facility that maintained U.S. registered aircraft, either domestic or overseas; or worked as an uncertificated person in the aircraft manufacturing industry in the United States, producing U.S. type-certificated or U.S. military aircraft.
- The 50 years may be computed consecutively or non-consecutively.



- Be a U.S. citizen.
- Have NOT had any airman certificate revoked. Revocation of any airman certificate will disqualify a nominee for this award.

To get an application to apply for the Charles Taylor Master Mechanic Award follow this link: <u>https://www.faasafety.gov/content/MasterMechani</u> <u>c/Default.aspx</u>

The Wright Brothers Master Pilot Award is the most prestigious award the FAA issues to pilots certified under Title 14 of the Code of Federal Regulations (14 CFR) part 61. This award, named after the Wright Brothers, is to recognize individuals who have exhibited exemplary aviation expertise, distinguished professionalism, and steadfast commitment for at least 50 years of piloting experience, or 50 or more years combined experience in both piloting and aircraft operations. A distinctive certificate and the airman's Blue-Ribbon package is issued after application review and eligibility requirements have been met. Upon request, a lapel pin and/or plaque for the award recipient is available for purchase and a second lapel pin is also available to purchase for the award recipient's spouse in recognition of his or her support to the recipient's aviation career. Once the award has been issued, the recipient's name, city and state will be added to a published "Roll of Honor" located at

https://www.faasafety.gov/content/MasterPilot/Rec ipientList.aspx.

To be eligible for the Wright Brothers Master Pilot Award, nominees must meet the following criteria:

Hold a U.S. Civil Aviation Authority
 (CAA) or Federal Aviation Administration
 (FAA) pilot certificate.

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• Have 50 or more years of civil and military piloting experience or 50 or more years combined experience in both piloting and aircraft operations.

- Up to 20 years of the required 50 years may be U.S. military experience.
- The effective start date for the 50 years is the date of the nominee's first solo flight or military equivalent.
- The 50 years may be computed consecutively or non-consecutively.
- Be a U.S. citizen.
- Have NOT had any airman certificate revoked. Revocation of any airman certificate will disqualify a nominee for this award.

To get an application to apply for the Wright Brothers Master Pilot Award follow this link: <u>https://www.faasafety.gov/content/MasterPilot/def</u> <u>ault.aspx</u>

The General Aviation Awards Program is broken up into 3 groups, there is the CFI of the year, the FAASTeam Rep of the year, and the AMT of the year, this for the mechanic and avionics techs. These are a cooperative effort between more than a dozen sponsoring organizations from the aviation industry and the Federal Aviation Administration (FAA).

For nearly 50 years, the Program has recognized aviation professionals in the fields of flight instruction, aviation maintenance/avionics, and FAASTeam Representatives for their important contributions to the general aviation community. The awards highlight the important leadership roles these individuals play in promoting aviation safety, education, and professionalism. Winners are recognized locally and nationally. The National winners are recognized during EAA Air Venture in Oshkosh, WI. Honorees may also receive gifts provided by sponsors and contributors. If you need more information, contact me at (316) 941-1260.

General Aviation Awards Do you do your part and take part. Additional Information

Please note the URL for the following sites have changed with introduction of the Dynamic Regulatory System

https://drs.faa.gov/browse/doctypeDe tails

Notice of Proposed Rules Airworthiness Directives:

Notice of Proposed Rule Making is your chance to make a difference and stay informed on future changes. Yes, if you go through the process, you can make a difference.

The URL for Proposed Rules Airworthiness Directives: https://drs.faa.gov/browse/doctypeDetails

New Airworthiness Directives:

Airworthiness Directives, for all aircraft, can be found at: https://drs.faa.gov/browse/doctypeDetails

Service Difficulty Program:

When a system, component, or part of an aircraft (power plants, propellers, or appliances) functions badly or fails to operate in a normal or usual manner, it has malfunctioned and should be reported. In addition, if a system, component, or part has a flaw or imperfection which impairs function or which may impair future function, it is defective and should be reported. While at first sight it appears, this will generate

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numerous insignificant reports, the Service Difficulty Program design is to detect trends. Any report can be very constructive in evaluating design or maintenance reliability. These reports can be filed electronically or by paper. For electronic filing go to <u>https://avinfo.faa.gov/sdrx/</u>. For paper submission, the form is available to download at, <u>http://www.faa.gov/documentLibrary/media/F</u> <u>orm/FAA_8010-4_7-19.pdf</u>, you may have to cut and paste this Link into your browser.

Service Airworthiness Information Bulletins (SAIB):

This is good information for issues that do not rise to level of an Airworthiness Directive. <u>https://drs.faa.gov/browse/doctypeDetails</u>

Can you tell me how many SAIB's came out last year? How about new Airworthiness Directives?

Wichita Flight Standards Office Information:

If you are looking for a Designees, Airworthiness Representatives, Designated Mechanic Examiners, and Designated Parachute Rigger Examiners information. **The Current Link is:**

https://www.faa.gov/about/office_org/field_of fices/fsdo/ict

Airworthiness Facts are published quarterly and available via email only. If you would like to receive Airworthiness Facts, contact the Wichita FSDO FAASTeam Program Manager or make sure your Email address is correct in FAASafety.gov, and that you have your notifications turned on.

Rick Stevens, <u>Richard.Stevens@faa.gov</u>



Appendix One:

Free IA Renewal Courses are always available online at FAA Safety.gov. Yes, training can happen anytime. So do not wait until the last minute.

To get credit for these courses, you must sign in to your FAASafety.gov account, if you do have an account, you can set one up at FAASafety.gov. To sign up for your free account go to FAASAfety.gov, and Under Welcome Guest block - New to FAA Safety.gov - Create an Account. Fill in the requested information.

If you have a FAASafety.gov account: LOGIN TO YOUR ACCOUNT. Once you are logged in – on the blue bar select Activities, Courses & Seminars – Select Courses and toward the bottom of the page select "Available Courses" – Show AMT Courses – Under the "Credit" column select the AMT courses that show - (↑ Also accepted for IA Refresher Training) and list cost as free.

Below is a list of the free IA Approved courses that are 1 hour or 2 hours long. After successfully complete 8 hours of training, follow the instruction for obtaining your certificate for each one. Retain those certificates and submit with your renewal paperwork in March. This list is always changing so check the courses before you take them.

If your employer is, a Part 145 Repair Station or a Part 135 operator, they may participate in the AMT Program, and you must take the 2024 AMT Core Training course and complete 12 hours of training, this will apply toward their Diamond Award for them.

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Course ID

ALC-817

ALC-808

A Case For Non Technical Training (AMT Core Course for 2021) irVenture 2023 Exp. and Light Sport Aircraft Maintenance

Free

FAASTeam

AMT

1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-796

ABS Engine Service Clinic Review Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-952

 Aging Aircraft Maintenance Techniques, Ownership, and Upkeep

 Free
 So

 Socialflight.com
 AM

 AMT
 1 H

 2 Hours Total for AMT
 1 H

 2 Hours Total for IA Refresher Training
 1 H

ALC-498

Aircraft Exhaust Systems (AMT Core Course 2018) Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-180

Aircraft Maintenance Documentation for AMTs Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training Free FAASTeam AMT

1 Hours Total for AMT

1 Hours Total for IA Refresher Training

ALC-893

Amateur Aircraft Inspection Case Study Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-792

Aspen E5 Installation and Support Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-794

Continental Aerospace Technologies - Ignition Maintenance Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-793

Continental Aerospace Technologies - Making TBO Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

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1 Hours Total for IA Refresher Training

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ALC-799

Continental Aerospace Technologies Engine Service Clinic ReviewFreeFAASSocialflight.comAMTAMT1.5 H1 Hours Total for AMT1 Hours

ALC-107

Dirty Dozen - Human Error In Aircraft Maintenance Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-37

Failure to Follow Procedures - INSPECTIONS Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-67

Failure to Follow Procedures - Installation Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-83 Failure to Follow Procedures - Landing Gear Failure Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-445

Federal Aviation Administration

Failure To Follow Procedures - Rationalizations (Core Crs. 2016)

FAASTeam **AMT** 1.5 Hours Total for AMT 1 Hours Total for IA Refresher Training ALC-786

False Targets While Ground Testing - ADS-B Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-258 **Human Factors Primer for Aviation Mechanics** Free FAASTeam **AMT** 1.5 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-899 IA Refresher Training A to Z Free Socialflight.com AMT 3 Hours Total for AMT 3 Hours Total for IA Refresher Training

ALC-897 IA Renewal and how to Use IACRA to Renew Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-895



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Is it Airworthy

Free Socialflight.com **AMT** 2 Hours Total for AMT 2 Hours Total for IA Refresher Training

ALC-832

Is Your Aircraft Engine Healthy Free Socialflight.com AMT 1 Hours Total for AMT

1 Hours Total for IA Refresher Training

ALC-592

Maintenance Error (2020 AMT Core Training) Free FAASTeam AMT

1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-327

Maintenance Error Avoidance (Core Course 2014) Free FAASTeam AMT

2 Hours Total for AMT 2 Hours Total for IA Refresher Training

ALC-409 PAUSE for Safety (Core Course 2015) Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-529
Proper Torque (AMT Core Course 2019)

Free

FAASTeam **AMT** 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-457

Reducing Maintenance Related Engine Failures (CC 2017) Free FAASTeam AMT 2 Hours Total for AMT 2 Hours Total for IA Refresher Training

ALC-896

Supply Chain Hazards to Aviation Safety Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-789

Tempest Aero: Spark Plug Maintenance Free Socialflight.com AMT 1 Hours Total for AMT

1 Hours Total for IA Refresher Training

ALC-534 **The Buck Stops with Me** Free Dr. Bill Johnson

AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-269



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The Impact of Tire Maintenance on Aircraft Safety

Free Michelin Aircraft Tire **AMT** 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-924

uAvionix AV-30 Installer Training Free

Socialflight.com

AMT 2 Hours Total for AMT 2 Hours Total for IA Refresher Training

ALC-931

uAvionix TailbeaconX Installer Training Free

Socialflight.com

AMT 2 Hours Total for AMT 2 Hours Total for IA Refresher Training

ALC-790

Wipline 8750A Float Maintenance Training

Free Socialflight.com

АМТ

1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-791

Wipline Small Float Maintenance Training Free Socialflight.com AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-587

Wiring and Electrical Free FAASTeam AMT 1 Hours Total for AMT 1 Hours Total for IA Refresher Training

ALC-117

Working Healthy - 8 Steps for Protecting Your Health Free FAASTeam AMT

- 1 Hours Total for AMT
- 1 Hours Total for IA Refresher Training